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The Management REVIEW

BY weak public relations policies and ineffective advertising, management is muffing a unique opportunity to win public esteem during the current labor crises. This is the conclusion reached by Fred Rudge in an abstract from *Printers' Ink* featured in this issue **(Strike Advertising Shows Lack of Know-How)**. Poor choice of themes and lack of due attention to public attitudes are among the main faults found by Mr. Rudge in today's opinion-forming advertising. Thus, he points out that it is unrealistic for industry to attempt to worry the public about the danger of legalized fact-finding or the possibility of government control of profits when recent opinion polls have disclosed that a majority of the public is in favor of both.

How can industry realize the full potentialities of strike advertising? For one thing, it can take a cue from labor, which is using streamlined public relations techniques when it tells its side of the story. And it could, as Mr. Rudge shows, cite many specific facts to demonstrate the fairness of its industrial relations policies and its desire to cooperate with labor.

THE prophets of gloom who frequently make the headlines with doleful predictions about our "dwindling" natural resources will find much to support them but as much to confound them in an appraisal of mineral resources presented on pages 90-91 **(Interim Inventory)**. On the debit side may be cited the facts that the United States has enough copper for only 34 years, enough lead for only 12 years, and perhaps only 18 years' supply of petroleum. However, we have enough iron ore to last at least 111 years, enough molybdenum to last until 2368 A.D., and sufficient coal to keep us warm until about 6051 A.D.

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General Management

Strike Advertising Shows Lack of Know-How

A MAJOR corporation whose employees had just gone out on strike recently ran in newspapers throughout the country a full-page advertisement which was intended to secure nation-wide approval of management's course. No decision, however, had yet been reached by the company as to what its objectives were in addressing the public. From the advertising point of view, that situation was akin to creating a product campaign without knowing either what the product was or to whom it might be sold.

Certainly there's more potential drama in getting 50,000 men back to work than there is in getting a cake of sudsy soap into a washbowl. Certainly there is more potential human interest in how much money a factory worker can make than in promoting .0007 per cent less nicotine per 1,000 smokes. But you'd never guess it by watching the average newspaper reader leaf by the ad presenting the corporate viewpoint.

The sad truth would seem to be that toothpastes, perfumes, and breakfast cereals are more interesting to the American public than such issues as who is going to work, making what sorely needed products, under whose leadership, when, and at what pay.

This situation would seem ludicrous *if* tomorrow's Americans weren't being shaped in the crucible of today's strikes. It would seem unimportant *if* management weren't missing a unique opportunity of instrumenting its own expressed intentions of winning public esteem. It would seem trivial *if* advertising had not already proved itself capable of presenting facts and influencing opinion.

But today advertising is not living up to even a small portion of its potential in this current crisis. The question now isn't *How can advertising do the job perfectly?* but *How can it do a better job than it has for the last three months?*

In the first place, the agency executive must deal with top corporate executives who, more frequently than not, are unfamiliar with the methods and techniques of advertising. Second, unless considerable care is exercised, the agency executive may not be fully informed on the strategy underlying the corporation's actions. In some instances, as a realistic labor relations adviser pointed out to the writer, getting that information will require constant attendance, for the strategy is apt to change frequently. Third, the message to the public may have several themes, may require virtually immediate public acceptance, and may even demand the teaching of some elementary economics.

In discussing the facts that are to be presented, due attention must be given to public attitudes. Consider for a moment several of the most popular

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approaches in recent strike advertising —for example, the advertiser's desire to worry the public about the possibility of government control of profits. This isn't apt to worry 57 per cent of the public, who, in a recent poll, made by the National Opinion Research Center, University of Denver, said they were in favor of government control of profits.

Another basic appeal is that legalized fact-finding is against the public interest. Already 83 per cent of the Republicans and 74 per cent of the Democrats, in a nation-wide Gallup poll, have declared themselves in favor of fact-finding processes by law. An appeal, therefore, based on the danger of legalized fact-finding has to combat too strong a tide of public opinion.

Couldn't management demonstrate through realistic and convincing advertising that it is cooperating with labor and that it is trying to get closer to workers by citing the many instances of the fairness of its present industrial relations policy? An example is General Electric's advertisement announcing the continuation of employees' insurance during the strike period.

Other facts that merit publicity may be that the wages offered are as high as, or better than, wartime levels—that labor's factory wages in 90 industries rose from 49.4 cents an hour in January, 1932, to 98.5 cents an hour in October, 1945; that the return to investors from 1928 through 1944 has averaged only 4 per cent; that financial statements of corporations are available for public scrutiny, while those of many labor interests are not; that corporations rigidly adhere to their union contract commitments, while irresponsible elements in union leadership do not; that business has provided an increasing number of jobs, possible only because of the faith of the investor in an equitable return on his risk capital.

Would it not be desirable for the management of many large corporations to offer people a personal leadership that will develop confidence and a sense of security equal to or greater than that offered by union leadership?

Why is it that the same techniques that have been used so successfully to sell America's products to the American public are not used to sell industry's contribution to society? Economic principles can be related to individual personal things with which everyone is familiar—why must they always be dressed up in the involved legal language of a corporation vice president talking to his banker, or of one corporation lawyer talking to another?

Shouldn't we dispense with such meaningless phrases as "regimentation," "socialization," "economic lifelines," and "prerogatives of management"? Shouldn't we think about using such techniques as the comic strip, the editorial cartoon, pictographs, and the picture page? Equally important, shouldn't the principle of repetition be followed as religiously in promoting an idea as in promoting a product?

And, finally, shouldn't media be selected through which the message reaches the segments of the public whose support the management of each individual company *primarily* desires, following the time-proved rule that first markets come first? These markets include employees, stockholders, distributors, customers, legislators, government officials, school teachers, school children, civic and fraternal groups, plant-cities, the public in general. Proper selection of media can place emphasis on these and other opinion-forming groups where it is most needed to implement the objectives of corporate public relations policy.

By Fred Rudge. *Printers' Ink*, February 1, 1946, p. 21:4.

The Branch Plant Trend in Industry

THREE broad movements, separate and yet interlinked, are taking place in our economic world today and acquiring increasing force as peacetime planning achieves reality. The first is the trend toward the export of American technology. The second is the doctrine of regional deficiencies, in recent years gaining prominence in our interstate relations. The third of these forces—and indeed the technical support for the first two—is the branch plant movement in industry.

"Export of technology" is a phrase that is coming into common use today, though it describes a movement that has been going on for many years. Shipments of production equipment have become an increasing part of our trade—such companies as Singer, United Shoe Machinery, and others being among the early trail-blazers—and there are many indications that the movement in the next few years will be even greater. Another form of technological export, initiated some years back, is the sending of American engineers abroad instead of sending the machines. Everyone is familiar with the extensive industrial design and building carried out by American engineers in Russia in the 1920's and 1930's. The same activities, less publicized, were going on in many other countries. At any given time in the '30's there probably were more American technicians in Western Europe than in Russia. They were designing and specifying equipment for foundries, automobile factories, electrical equipment plants, and the textile and chemical industries. Similar undertakings were launched on a corresponding scale in the less industrialized parts of the world.

A little later began the export of American management. This took two principal forms: the American manager went over to direct a foreign branch office or subsidiary of the home company, and the consultant went abroad to introduce American management methods in European companies. The work of the manager or executive is a little more difficult to define than that of the technician, whose ideas are expressed in the blueprint, but its influence and its value as an "invisible export" are probably greater.

The latest, or at least the most striking, aspect of the export of technology is the "packaged plant." Under a special form of "export" agreement, American engineers have contracted with representatives of foreign countries to design a new plant to be installed abroad, to determine how the product is to be made, specify the equipment, purchase it, have it delivered overseas, supervise construction and installation, and turn over a complete running plant to the owners, "key in the door."

Leaving the foreign field for a moment, let us examine the second of the three forces mentioned earlier—that is, the idea of regional deficiencies in our own states. Back in California in the early '30s, a New York engineer presented the results of survey of the state as an economic unit to his client, one of California's many active regional development associations. He cited a number of products which the state consumed in very large volume but did not manufacture. He balanced this list of products to some extent by another list—mainly agricultural, of course—which the state produced and exported in considerable excess over its local consumption.

In referring to the list of manufactured products, he used the term "deficiency" to describe each item which the state consumed in excess of its production. The implication in the minds of many was that the state ought to produce many of those "deficiencies." This implication attracted some attention at the time and more recently has been taken up by other states. Some of the eastern states, for example, have been insistently pointing out that their share in the manufacture of all the machine-made products they consume is relatively very small. State industrial boards, chambers of commerce, and trade associations have been asking how they can attract new enterprises or build up local industries to fill some of these deficiencies.

This deficiency doctrine will be recognized, of course, as only another phase of that movement, which was somewhat threatening in the '30s, whereby the individual state erected invisible obstacles to interstate trade in the form of trucking laws, compulsory inspection of agricultural produce, and petty taxes. In a small way, the whole movement was a domestic parallel of the measures toward greater industrial autonomy that were adopted in most foreign countries. One of the first possible postwar effects will be an increased revival of the latter movement and, similarly, it is probable that this will be accompanied by intensified competition between our states, or at least between our several economic regions.

The element which renders practical in a technical way both the export of technology and the growth of regional industry is the branch plant. While industrial techniques were being formed, there had to be great concentration of industry—new industrial workers had to come to the machines, and the machines in turn had to be centralized in a locality favored by sources of material or power or traditional skills. Gradually, however, as manufacturing methods and engineering skills became perfected, it was found possible and even advantageous to decentralize one activity or another in the form of a branch plant.

Our large corporations began to find advantage in setting up branch assembly plants in this country as far back as 30 years ago, but this trend has been greatly intensified by the war. In the same way, those corporations that were leaders in overseas selling long ago found it practical to establish complete branch plants in their foreign markets. American Radiator, Corn Products, Eastman Kodak, Firestone, Goodrich, Goodyear, Monsanto, National Cash Register, Otis Elevator, Yale & Towne —these are just a few of the well-known names on the "big board" that have long manufactured overseas. In all, in Europe alone just before the war, there were 560 such branch plants representing a direct American investment of about $700,000,000.

Today, one of the foremost indications of postwar policy was given in a recent statement by the president of General Motors that his company intends to decentralize many of its main operations, establishing smaller plants in smaller communities in various parts of the country. Ford has publicized similar policies.

It has already been suggested that much credit for the decentralization of industry must be given to the American machine designers and builders who have sought to integrate in compact, automatic units the advantages of low-cost production. Recognition must also be given our great progress in standardizing and disseminating a concrete body of *management methods* which have made it possible for the

branch plant in Oklahoma or in Brazil to be administered as effectively as the mother plant in Detroit.

As for the future, we may expect that the next decade will see a more equal distribution of manufacturing throughout the United States and an abundance of manufactured products that we have never known before. In the foreign field, American manufacturing methods, through American machines, American engineers, and direct investments, will cover the world economy even more thoroughly than did the nineteenth-century British mercantile methods. We may be confident that branch plant operations, both mechanical and administrative, will continue to develop into a well-rounded, distinctive arm of our American production science and will bring ample benefits to the economy of communities throughout our country.

From *The Branch Plant Trend in Industry,* by Graham Woodward Parker. Available without charge from Parker & Strackbein, 230 Park Avenue, New York 17, N. Y.

Bear Market Ahead?

IN its 50-year history, the Dow-Jones industrial-share average has surpassed its recent level, above 200, only during the short stretch of 32 months from March, 1928, to October, 1930. That was the period of the biggest boom American business ever experienced and of the early months when this boom was in the process of collapse. It also included the period of a record degree of overspeculation.

From the foregoing one must conclude that the stock market at this time stands at a historically high level. To retain stocks at this high level in expectation of further advance sufficiently large to make it worth while to accept the risk can be justified only on the basis of a forecast of a record business boom for the nation.

It is my conviction that no such boom period now lies around the corner.

What is boom? When an industry achieves unusually high output combined with unusually high earning power, we say that the industry in question "booms." When a large number of industries boom at the same time, a condition of "general business boom" is created. I believe that available data do not indicate the probability of the booming of many industries simultaneously.

The industry with the clearest outlook at this time probably is the automobile business. We know that people are looking forward to new automobiles and that for a certain stretch of time it will be possible for automobile manufacturers to sell all the automobiles they can produce. It is possible to differ in judgment about the probable duration of this stretch of time: it may be 18 months or it may be four years. The point is that this stretch of time runs in terms of years.

Today people are standing in line in front of stores in New York to buy stockings. One of my business friends, who has been in the textile business all his life and who still is a director of one of the large corporations in that field, tells me that before the year is out the nation will be "drowned" in stockings. Overproduction and price cutting in radios also are expected before the end of the year. There are scores of examples to support the fact that public

expression of desire for goods is not automatically identical with an outlet for goods, and that more industries may now be in a position comparable to that of the producers of stockings and radios than one might expect.

Already gasoline, the money product of the oil industry, has been in oversupply for several weeks and subject to price cutting. The point is almost reached where storage capacity is fully occupied and "distress" gasoline will make its reappearance. In other words, in this field the time of unlimited outlet already is over.

The important building industry is, by the nature of building processes, a slow industry to get under way. There is enough shortage of housing to expect a building boom to develop at some time, but no volume of building amounting to boom should be expected within three years. In other words, the building industry, which is economically important on account of the number of people it employs and the quantity of materials it consumes, will only be working up toward its top when most other industries are over it.

There remains another group, well illustrated by aluminum. This industry expanded its capacity during the war to between eight and ten times the prewar outlet. At this time the natural outlet for aluminum is larger than prewar, but we are generous if we estimate it at twice prewar consumption. We may assume that, over a period of time, the nation will be taught to use so much more aluminum that even the expanded capacity will be too small. That, however, will take time—perhaps five, 10, or 15 years. Some of the capacity will be taken out of operation. The fact remains that for years to come this industry will be subject to the depressing influence of excess capacity. A real boom in this industry need not be expected until even the building boom is over the top. Other industries are in the same condition.

Notwithstanding these examples, it remains true that many industries have ahead a period of good demand for their products. There is no reason, however, for expecting an exceptionally large number of industries to achieve their tops simultaneously. The tops will rather occur in sequence, spread over a considerable period of time, though there will be some tendency toward concentration in the near future. If that is correct, there is no good ground for forecasting an unusually high boom in business as a whole. If, contrary to expectation, such a thing were to occur nevertheless, then its top should be nearby (shortly after the end of the big strikes) and from that point on business should almost immediately begin to decline.

Some industries will show a distinct increase in earnings in 1946 for the reason that their profits before taxes will remain substantially unchanged, and that the elimination of the excess profits tax consequently will produce an increase in net. Even at the reduced tax rates, however, corporation taxes still are high in comparison with the rates charged in the 1920's. Neither ceiling prices nor increases in hourly wages are helpful to profit margins. Labor troubles will not vanish all at once. Production capacity is far beyond consuming capacity of the nation at this time.

Now let us consider our federal deficit as it affects commodity price levels. Till the end of 1940 the deficit was running on a fairly even keel. After that, it grew rapidly until the time of Pearl Harbor. Then it took an almost vertical leap, quickly reaching what was to be the wartime level of deficits. For close to three years the deficit fluctuated on a "plateau" between $4 billion and $5 billion a month. Then, with the end

of the war, the decline in the deficit was as vertical as the increase. For the fiscal year 1946-7, President Truman estimates an average federal deficit of $350 million per month. In its recent pamphlet entitled *United States Government Securities and the Money Market,* the Bankers Trust Company of New York states that, "if the government makes an effort in that direction," government receipts and expenditures may reach balance by the end of the calendar year 1946.

Government deficits have an upward influence on the commodity price level. The size of the federal deficit before 1941 was fully expressed in the national price level. When the war came, price restrictions were instigated and the cost of living was not permitted to rise to a level commensurate with the size of wartime federal deficits. With prices held in check, and the supply of goods limited, the public was obliged to save on a large scale, irrespective of its wish to do so. The level reached during the war by the cost of living corresponded with a federal deficit much below the actual. Consumers, by their excess saving, deflated.

After the war the deficit began to shrink, but remained larger than was commensurate with the commodity price level. This was demonstrated by the fact that commodity prices still had a strong tendency to advance. We have insufficient experience from the past to be able to determine what size of federal deficit balances with the currently existing commodity price level. Under the circumstances, that is unimportant to us, because the existing condition will end soon. If the estimate in President Truman's budget message, and that made by the Bankers Trust, have any validity at all, the size of the federal deficit will, within the next few months, shrink to a level which is definitely below that which corresponds with the present commodity price level. The estimates from both sources may be moderately over-optimistic, but at least they are not far wrong. The result of reduced deficit spending would be the development in the near future of a downward pull on commodity prices.

These data suggest that the optimism expressed by public opinion regarding 1946 and 1947 earnings for business as a whole may have been unfounded. The more logical thing to expect is "spotty" business. There is good reason to doubt that a new bull market will be physically possible on top of that of the past four years. Especially the approach of a temporary "lull" in inflation strongly suggests the probability that the necessary intervening downtrend will rate the title of "bear market," a broad and time-consuming movement.

By A. A. Mol. *Barron's,* February 25, 1946, p. 3:2.

When to Air-Condition

TO AFFECT worker performance adversely enough to justify expense of air conditioning, temperatures must rise above 80 degrees Fahrenheit. Between 80 and 87 degrees there's some doubt as to whether air conditioning is needed. That's true, at least, in plotting and charting rooms aboard Navy ships where speed, accuracy, and high morale are important. Data come from new series of Navy Department tests conducted with cooperation of the American Society of Heating and Ventilating Engineers. Investigators also state that noise under 90 decibels does not affect performance enough to justify cost of reducing noise in air conditioning systems.

—*Modern Industry* 2/15/46

Office Management

Making an Office Operations Audit

IN recent years, the practice of conducting regular audits of office operations has become increasingly popular as a means of establishing and maintaining control over clerical functions. Like the financial audit, the operations audit is most beneficial when conducted at regular intervals on a specific schedule. The audit must concern itself with policies, organization, procedures, personnel, and progress. It is usually more productive to consider all these factors together for a department or a functional division. Thus the complete picture of the work situation in that area can be presented and analyzed, averting the possibility of considering certain problems at the expense of others.

Some of the principal techniques used in the operations audit are briefly set forth below:

1. *Policy Questionnaires.* On matters of policy, an operations audit can highlight any inconsistencies or inadequacies in existing policies, and indicate possible remedies. The questionnaire should include items similar to those listed below:

(a) Are the policies of top management clearly understood with relation to the principal activities of the office, such as purchasing, accounting, auditing, personnel, etc.?
(b) Are these policies clearly set forth in writing to the interested parties so that no misunderstanding can result?
(c) Is complete compliance with all expressed policies obtained?
(d) Are any policies outmoded and unsuited to efficient operation under present conditions?

2. *Organization Charts and Questionnaires.* The organization structure is of the utmost importance, since it is the basis for delegating all responsibilities and authorities throughout the office. It can best be studied through organization charts. These are most useful when supplemented by brief write-ups of duties and responsibilities or when combined with organization manuals. Organization questionnaires are frequently employed to facilitate such studies.

The following is a suggested group of questions (each of which should be placed on a separate sheet on the questionnaire to encourage detailed and complete answers):

1. To whom do you report?
2. Who reports to you?
3. What is the principal duty of your unit?
4. What are your specific responsibilities with respect to this duty?
5. What are your relationships with other sections or units?
6. What are your relationships with branches or agencies?
7. What is the extent of your authority?
8. What reports do you receive, who sends them to you, and how do you use them?
9. What reports do you make out, to whom are they sent, and to what use are they put?
10. What reports do you need, and to what end would they be used?
11. What committees are you a member of or do you consult with?
12. What constructive suggestions and general comments would you care to make?

3. *Work Distribution Charts.* Even as the organization chart outlines the principal duties assigned to a department or large organizational unit, the work distribution chart outlines the principal duties performed by smaller units (such as sections) and by individuals within such units. These duties are broken down into a rough division by work operations, indicating the work operations performed by each indi-

vidual in the unit and showing the approximate time spent by each person on each of his assigned duties.

4. *Process Charts.* These charts are designed to permit the making of a complete picture of a procedure or a related group of procedures, and are couched in a special sign language of their own, varying somewhat according to the desires of the persons making the chart. For example, a large circle may be drawn to indicate an operation; a small circle may signify a transportation; a square may indicate a checking or inspection; etc.

Three principal questions are directed toward the procedures in the course of an operations audit: (a) Are they simplified to the greatest possible extent? (b) Are they standardized in written form? (c) Are they subject to constant review and revision to meet changed conditions and problems?

5. *Forms, Reports and Records Questionnaires.* Any large organization will, over a period of time, build up a great volume of reports, records, and forms that in some instances will be found of little or no value. In order to determine the value of various reports or records, a form and records questionnaire is used.

For example, a form questionnaire might call for information as to the division, section, or unit issuing the form, its title, a brief description of it, person authorizing its use, its frequency of issue, number of pages, number of copies prepared, and the names and departments to which it is sent.

6. *Work Measurement.* As used in operations audits of the type discussed, work measurement consists of (a) determining for a given activity a standard quantity of work which should be done within a certain time; and (b) comparing the actual amount of work done with that standard.

7. *Physical Conditions.* Physical environment in which the work is performed influences the quality and quantity of output. All such factors as space, noise, light, and ventilation have significant effect on the clerical staff. Frequently rearrangements in the use of space and the flow of work will favorably affect production even in cases where no major procedural changes are made.

8. *Personnel Administration Analysis.* This is the most difficult phase of an operations audit and one that will be given special care and attention by the experienced analyst. Uppermost in his mind will be questions relating to evidences of a need for job evaluation installation or improvement; indications of placement technique; status of employee training; employee morale and attitudes; employee benefits and facilities; development of job specifications; and hiring practices.

9. *Progress Reporting and Analysis.* Top office executives and department heads are employed and paid because of their experience, their capacity to think, act and plan constructively. But fully to exercise these talents they must receive a solid basis of factual information on which to premise all planning, thinking, and acting.

An operations audit can pass upon the effectiveness of existing records, statistics, and reports. Further, through analysis of the functions assigned, it is possible to advance recommendations for improvements in or additions to existing reports and statistics. Likewise, the elimination of unnecessary reports and records can be recommended.

In addition to appraising the system of operating reports intended to reflect the degree to which subordinate executives are performing their assigned duties successfully, an operations audit also properly concerns itself with the

existence of adequate production standards and of quality controls. Below are listed typical questions used to audit this phase of office operations:

(a) Are the various departments on a measured production basis to the greatest possible extent?

(b) Have individual repetitive jobs been studied in order to determine and establish reasonable production standards?

(c) Do suitable controls safeguard the quality of clerical work?

(d) Are work volume and production figures used to forecast trends, measure supervisory efficiency, and point out training needs?

(e) Does each organizational unit have a personnel allotment based on its work volume?

(f) Are unit costs of production for each department or section the lowest obtainable under present conditions?

(g) Are personnel allotments varied in accordance with changing conditions within the unit?

Frequently management programs of this nature have implications that go far beyond the relatively limited objectives of the programs themselves. When key people concertedly attack the question of office improvement on an organized basis, narrow departmental viewpoints tend to disappear, to be replaced by progressive company-wide attitudes that are the foundation of success in coordinating the complex operations of the modern business office.

By Edward F. O'Toole. *The Office,* February, 1946, p. 36:14.

Rules for Office Safety

LAST YEAR federal office workers suffered 49,000 job accidents—98 per cent of which were preventable. To foster the growth of safety-consciousness among clerical personnel and root out the cause of office accidents, the Bureau of Ships of the Navy Department offers the following simple safety rules:

Is this trip necessary?—Serious casualty often results from carelessness on stairways.

1. Walk—*don't run*—on stairways.
2. Keep your hand on the stair rail when going up or down.
3. Keep to the right to prevent traffic jams.
4. Keep stairways free of slippery items and stray papers.

The fall of man—Badly placed electric wires, etc., frequently cause accidents.

1. See that walking space is not cluttered up with wires or cords.
2. Barricade free space if wires or cords must run through it.
3. See that dangerous wires and cords are relocated.

Even office files and desks can be dangerous—when improperly located or carelessly used.

1. Keep heavy drawers at the bottom and open only one drawer at a time to prevent the file from tipping.
2. Keep drawers shut when not in use, and always close them gently.
3. Use the handle when closing your typewriter compartment.
4. Do not crowd file spaces or place furniture on top of file cabinets.
5. See that multiple files are securely bolted together.
6. Use regular stepladders to reach high file spaces.

Don't be the office Samson—Lifting improperly or too much merely results in strain.

1. Lift properly—with back erect and legs bent so that your legs bear the load.
2. Do not lift anything beyond your capacity without assistance.

Good office housekeeping—goes a long way toward reducing hazards.

1. Securely wrap sharp objects—broken glass, razor blades, thumb tacks, etc.—before disposing of them. On desks, keep such sharp objects in their proper compartments.

2. Shut off moving machinery before adjusting it.
3. Secure all electric fans so that they won't tip over or be reached accidentally.
4. Never use pins as paper fasteners.
5. Store matches carefully, and *never* throw a lighted cigarette butt out of the window or into a wastepaper basket.
6. Don't tinker with defective wiring or equipment—call the electrician. You might be "shocked" to discover what an unhandy handyman you really are!
7. Avoid sprains by calling the maintenance man about jammed windows.
8. Keep fingers out from under the paper cutter. It sounds obvious, but fingers have been lost that way.
9. Check all office furniture for splintered or sharp edges and chipped or broken glass tops.
10. Avoid the use of spike files.
11. Insure that there is sufficient light in each workplace.
12. Check to see that floors are not uneven, splintered, or slippery when waxed, and that they have no loose coverings, or protruding nails or screws.

Dangerous curves ahead—Careless walking habits result in numerous needless accidents.

1. Keep to the right at corners—blind corners cause more falls than blind dates.
2. Never combine reading with walking—it is as bad a combination as driving and alcohol.
3. Keep sharp items covered while walking.

First Aid—Even minor injuries—such as small cuts, pin-pricks, bruises, or that something in your eye—may become serious if infected or improperly treated.

Remember—Your friends would rather say of you, "Doesn't he look good!" than "Doesn't he look natural!"

—*Office Practices Bulletin* 12/15/45

"Very Promptly Yours"

A METHOD for obtaining greatly increased "mileage" from material in THE MANAGEMENT REVIEW and PERSONNEL has been brought to our attention by an AMA member. Finding that good articles, once read, were not immediately available for subsequent reference, he had his secretary prepare a handy card catalogue of all articles appearing in both publications.

Each item is classified on a 3" x 5" index card as follows: (1) General Classification of Article. The number of general classifications may greatly exceed the seven AMA division titles, and their selection would, of course, vary with individual interests. The general classifications are arranged alphabetically, while the cards covering the articles are filed behind the appropriate classification cards according to date of publication. (2) Title of Article. (3) Contents—i.e., a brief outline of the points covered. (4) Author's name, and original source of article if it is an abstract or reprint. (5) Issue and page number of the AMA publication in which it appeared.

Aptly dubbed the "Very Promptly Yours" file, this simple index makes it possible to locate, in a moment, information which may be required on short notice by the busy executive.

Office Workers' Ratio

THE ratio of white-collar workers to production workers, which went from 1-9 to 1-4 during wartime, is being slowed down by reconversion needs. However, it is believed unlikely that the ratio of one office worker to nine production workers will return to postwar industry.

—*NOMA News* 2/46

Setting Up a Personnel Budget

IN any cost-reduction program, the items of greatest expense should obviously be considered first. The greatest single cost item in the vast majority of businesses—often up to 75 per cent of the cost of the finished product—is labor. A material reduction in labor costs can and does often mean the difference between profitable operation and business failure.

This is not to imply that personnel costs should be cut by means of wage and salary reductions. As a matter of fact, such action can actually increase total labor costs. Personnel expense can be trimmed effectively only by the elimination of unnecessary functions and personnel in conjunction with a compensation plan that will adequately reward the remaining employees for their individual efforts.

The techniques for proper utilization of personnel are well illustrated in the case of a shipyard which recently had a survey made of its non-productive (technical and clerical) operations. The yard, located in the southern part of the United States, employed 10,000 people, of whom 1,200 were covered in the survey.

In the initial analysis and installation, it was possible to eliminate some unnecessary functions and personnel, resulting in an immediate reduction of $400,000 in annual payroll costs. During the first eight months of operation under the new plan for administration, an additional reduction of approximately $600,000 was made in non-productive labor costs.

The basic technique for accomplishing this cost reduction was a detailed analysis of the duties performed by each of the 1,200 employees covered by the survey, and the establishment of personnel budgets for each operation and function in terms of numbers and classifications of necessary personnel. Each employee's duties were analyzed with four questions in mind:

1. Is the work performed essential in the operation of the company?
2. Does this employee's job overlap into or duplicate other jobs in the same or other departments?
3. Is the work being performed by the most efficient methods?
4. Is this employee carrying a full workload?

The preliminary data to answer these questions were gathered by questionnaires, conferences with supervision, observation of the work flow. This information was recapitulated into functional organization charts describing each operation in detail and showing the personnel currently assigned for its performance.

The information was then checked by an on-the-job observation and audit of the duties performed by a sample of 25 per cent of all employees covered by the survey. The functional organization charts and operation sheets were corrected in the light of the additional information secured by the audit.

The survey analysts then sat down with each department head to determine the numbers and grades of personnel required for the necessary functions of his department.

It was immediately evident that in many cases employees were duplicating work done by others in the same or other departments. Comparisons of workloads showed that some em-

ployees were spending eight hours on a four- to five-hour job. In certain cases, employees were performing duties which were absolutely unnecessary. For example, one girl was spending seven hours per day preparing a statistical report, the need for which had long since ceased.

In conjunction with the examination of duplicate or unnecessary functions and the determination of workloads, the methods of operation were reviewed with the department head. In many instances a revision in methods resulted in much better utilization of personnel.

Personnel budgets were then set up, with the full approval of the department head, for each essential operation. These assignments, made initially without considering the incumbent personnel, showed:

1. The number of employees required (in terms of workload) to perform each detailed operation.
2. The proper classification or pay level for each.

For example, a particular operation in the accounting department might require one junior accountant, two accounting clerks, and one typist-clerk.

To be effective, the personnel budget technique must have the full cooperation of the supervisory and administrative groups. Reductions in personnel must be made by the supervisor himself, under the guidance of and in cooperation with the budget analyst. Unless the supervisor is convinced that the new personnel budget is reasonable, the plan just won't work.

Initial results of personnel budgeting are always dramatic. The elimination of deadwood and of overlapping and duplicating functions is immediately impressive to management. The full value is realized in the continuing administration of the budgets.

Administration is simple: A file is set up for each department, showing the operations, the personnel budget, and the names of incumbent employees. Each requisition for a new employee is checked against the file. Unless there is a vacancy (terminations and transfers are posted), the requisition is returned and the department head must show the need for a new position.

This is a much more difficult task than that of filling out a requisition. Demand for additional personnel usually decreases by 80 to 90 per cent. Further, whenever a termination or transfer is made, the necessity for the then-vacant job is reexamined. In a large percentage of cases the department head, with proper encouragement, can combine and eliminate operations and get along without filling the position.

As an example, a department head complained bitterly that the personnel department had not filled a requisition for a typist turned in three weeks before. It was pointed out that if he could keep work up to date for three weeks without another girl, he might do so indefinitely. An examination showed that the other girls in the department had divided up the work in such a way that they were handling it all very nicely. The department head then canceled his requisition.

Personnel budgeting is as applicable to the small company as the large. Consider, for example, a survey recently made in a wholesale hardware supply company employing 60 people. Using an almost identical technique to that employed in the shipyard, 12 unnecessary jobs were eliminated, with an annual reduction in labor costs of $26,230.

There will be a tendency for the managements of many companies to

agree that some form of personnel budgeting is highly desirable, but to postpone any immediate action because of rapidly changing postwar conditions. This policy is most unwise. The ideal time to establish personnel budgets is in a period of transition—before the organization is loaded with unnecessary personnel.

By A. Maxwell Clark. *American Business,* November, 1945, p. 10:4.

Pattern of Industry Wage Adjustments

THE following table shows the range of wage increases given in specific industries between August 18, 1945, and January 10, 1946. Where the range is relatively narrow, management will know how much the "industry pattern" wage increase is likely to be. In industries where the range is wide, management has substantial leeway for bargaining.

	Cents per hour	*Percentage*	*Dollars per week*
Apparel	10–15		
Building trades	10–12½	15	
Chemicals	5–22	10–15	
Electrical industries	18½		
Food and kindred products	4½–17½	10–25	4.20–12.50
Furniture	5–15	10–15 (10)*	
Leather and leather products	5	10–15 (15)*	
Lumber	15		
Metal products, etc.	4–20 (10)*	5–20 (10)* (15)*	
Paper and allied products	2–15	10–19	2.00
Petroleum and coal products		10–18 (15)*	
Printing, publishing, etc.	5–35	10	2.15–5.00
Rubber products	5–10	15	
Stone, clay and glass	3–30		
Textile mill products	5–16 (10)*	10	7.50
Tobacco	6		

—*Business and Legislation Report* (Research Institute of America) 2/23/46

*The figures in parentheses represent a significant clustering of rates.

Industry's View of "Ability to Pay"

A RECENT *Mill & Factory* poll discloses that management is generally opposed to the use of a company's ability to pay as an issue in wage negotiations. Fully 92 per cent of the companies surveyed are opposed to the injection of the ability-to-pay issue in wage negotiations, and an even larger number consider that use of such a yardstick constitutes a dangerous precedent.

Asked what facts they consider relevant to wage negotiations, 99 per cent were in favor of considering an increase or decrease in productivity of labor; 68 per cent deemed pertinent an increase or decrease in machine productivity; 86 per cent held that an increase or decrease in cost of living was significant; and 32 per cent felt that the maintenance of public purchasing power was a factor worthy of consideration.

In answer to the question, "Do you consider the price of the product of valid concern to production employees?", only 36 per cent replied in the affirmative.

The final question was as follows: "Where a wage issue is involved, should detailed production, cost, and profit records be made available to the government, to labor unions, and/or the public?" While 9 per cent were in favor of disclosing this information to the government, 90 per cent opposed it; 1 per cent gave no opinion. Only 3 per cent favored giving such data to labor unions. Similarly, only 2 per cent felt that this information should be turned over to the public.

Negotiating Maintenance-of-Membership Demands

ANY realistic planning for contract discussion must take into account the possibility that you will have to negotiate on the issue of maintenance of membership. Here are some considerations that should be borne in mind in developing your policy:

1. *Wagner Act.* Has the union with which you are negotiating been designated by a majority of the employees in the appropriate unit? If it has not, it may be a violation of Section 8 (3) of the Act to agree to grant maintenance of membership.

2. *State Laws.* If your state law contains a statute limiting or forbidding closed-shop contracts, would the yielding of a maintenance-of-membership provision contravene that law?

3. *Company Security.* Since the foremost argument on behalf of maintenance of membership is that it permits the union to relax its organizational drive and thus act with greater responsibility in its dealings with the company, should the clause be renewed in the case of a union which has failed to exercise the responsibility it bespoke when the provision was first negotiated? Should the company make the granting of the clause contingent upon a "company security" provision which will protect management against violations of the contract, unauthorized work stoppages, slowdowns, boycotts, and other interferences with production?

4. *"Good Standing" Defined.* To protect employees against unreasonable union expulsion and subsequent loss of their jobs, should the maintenance-of-membership provision specifically define what is meant by "membership in good standing" for the operational purposes of the clause? For example, the contract might state that "membership in good standing" as used in the maintenance-of-membership provision means the payment, or tender of payment, of stated maximum initiation, fees, dues, and assessments.

5. *Escape Period.* Should the maintenance of membership contain an escape period during which union members may withdraw their membership before the provision becomes effective? The standard WLB clause did contain a 15-day escape period, but objection has been made that the phrasing was so negative in character that employees were not always clear as to their rights.

6. *Posting "Escape Period" Notice.* Should the contract provide that a notice explaining the escape period may be posted on company bulletin boards prior to the date on which maintenance of membership becomes effective?

7. *Maintenance by Employee Request.* Should the maintenance-of-membership provision be limited to union members who request, on a standard form, that union membership be made a condition of their continued employment?

8. *Wage Assignment Laws.* Would a checkoff provision violate any state statute against wage assignments?

9. *Limitation of Amount Checked Off.* As a protection for the company against complications that might result from changes in the financial affairs of the union, should the checkoff provision limit deductions to stated dues and a restricted number of reasonable assessments?

10. *Employee Revocation of Checkoff.* Should the checkoff provision provide a method by which employees may revoke their checkoff authorization?

NAM News (Section 3), February 23, 1946, p. 2:1.

Interviewing Veterans

THE following interviewing techniques should prove helpful to those responsible for counseling veterans:

1. *Make the veteran feel at ease.* Begin the interview in an interesting and friendly manner. *Be at ease yourself.* Be natural, sincere, and genuine. Establish right sort of relationship. Make it lasting. Afford as much privacy as practicable.

2. *Deserve veteran's confidence.* Show a sincere interest in veteran. *Recognize* and *respect* his *values, goals,* and *purposes.* Do nothing to lower his self-respect. Avoid protracted or unnecessary discussion of his disability.

3. *Use variety of approaches.* Approach may be direct or indirect. Veterans approach an adviser with various degrees of receptivity. Some are eager for help; some may resent it. Some are in cooperative mood, others are not. Some are timid and others indifferent. Open interview with any subject which seems appropriate to the occasion. An unfavorable approach is difficult to counteract.

4. *Make the interview meet the needs of the veteran.* Encourage veteran to express himself frankly and freely concerning his personal interests and ambitions. Direct discussion so as to lead to the veteran's background and experience. *Stimulate self-examination and self-appraisal.* Observe carefully veteran's mannerisms, attitudes, and interests. *Listen and observe.* Be on lookout for casual remarks. Give the veteran an opportunity to talk and release his emotions. Discuss veteran's limitations so that he will not make plans that will lead to inevitable failure. It is mistaken kindness to let veteran believe he can reach a goal when the weight of evidence is all against him. The interview must be a fact-focusing session which aims at classifying problems. It should always be motivational but never decisional on the part of the interviewer.

5. *Keep control of the interview.* Guide the interview, but do not monopolize the conversation. Avoid letting veteran ramble too far afield and into unimportant topics. *Do not dictate or ride your own hobbies.*

6. *Close interview tactfully.* Termination of the interview should be definite. It should never be left up in the air, without a definite understanding as to the next step in a plan of action. All problems may not be settled in an interview, but to be successful an interview must lead to some plan of action. Action is more comfortable than indecision. Success of interview does not necessarily depend upon length.

Each interview should be conducted according to a plan, but the adviser must be alert to changing his procedure and adapting his technique to changing attitudes, facts, and circumstances presented by the veteran.

Veterans react favorably to the adviser who: (1) is understanding, patient, and friendly; (2) can help them to define their problems; (3) can give constructive suggestions; (4) shows a sincere interest in them; and (5) presents all angles and leaves the decision to the one interviewed.

BY VERL A. TEETER. *Occupations,* February, 1946, p. 290:2.

• A TWENTIETH CENTURY FUND report quotes a study showing that from 1925 to 1934, the average annual income per worker—in dollars of equal purchasing power—in the United States was $1,381; in Canada, $1,337; in the United Kingdom, $1,069; in Australia, $980; in Norway, $539; and in Mexico, $360.

Production Management

Interim Inventory

NOW that World War II is the property of the historian and III is no more than a glint in the eye of the atomic bombardier, there recurs the familiar hue and cry over United States mineral resources. The gloomier prophets make free use of the word "dwindling" in discussing our supplies of certain basic materials. True, the weight of that sinister adjective has always been subject to modification through new discoveries, the opening up of untapped submarginal areas, the development of new and more economical means of production, and basic changes in the use of materials and fuels. Still we are a dependent nation with respect to a goodly number of vital materials and in some quarters are regarded as a "have-not" nation.

According to a recent judgment of resources and techniques, the United States is strong in six of 25 "essential" minerals; it has about enough of five others; it is partly dependent on outside resources for six others; it is almost totally dependent for eight others. The world map of raw materials shows that complete mineral independence is impossible for anybody. Political units outside the Big Three look like poor relations. Combinations among the Big Three cut down but do not eliminate the margin of shortage. Even a United States-British combination would have practically no antimony or mercury.

Some United States weak points:

Mercury: We have about run through our inheritance, which was never worth much anyway. Only 3 per cent, or enough for about three years, remains. Before the war Italy and Spain controlled over 70 per cent of world production.

Copper: Resources are sufficient for only 34 years, with United States production likely to slide out of first place in 10 years. For several decades scrap could be a good source of replacement. If higher prices prevail, we may in the long run squeeze dry even our submarginal veins.

Nickel: United States deposits are almost all below the productive margin. But neighboring countries are sources: Canada produces 85 per cent of the world supply, and Cuba has mines.

Lead: The United States is but 12 years away from the last of its supply. Substitutes for lead in bullets are few, though in Normandy the Germans did use wooden affairs that left sizable, raw-looking holes in the anatomy. The tariff is a stimulant to exploration of poor lead deposits, but in any case our imports are expected to rise sharply.

Zinc: 19 years to go.

Bauxite: Nine years more to go, and wartime technological development may somewhat extend the period. The submarginal supply is good for one to five centuries.

The alarm is beginning to sound for:

Iron Ore: The best American reserve, the Mesabi Range, should cease yielding superior ores by 1966. Our total sure reserves will last 111 years, with enough likely-looking rock for thousands of years.

Petroleum: A reasonably dependable estimate of 18 years—but actual reserves and rate of extraction cannot be accurately gauged.

The "all clear" can be sounded for:

Magnesium: This is thrown in with any seacoast, since it can be processed from brine. By 1943 the United States had three-fifths of the world's production as against 1939's one-tenth.

Nitrates: Now a laboratory product, these can never again be a problem. Moreover, anybody using nitrate explosives in the future will only be fooling with firecrackers.

Coal: 65 per cent of the United States anthracite remains in the ground, enough for the next 195 years. Wide use of bituminous will follow and will enable every United States town and city to resemble Pittsburgh until approximately 6051 A.D.

Molybdenum: Barely enough for our high-precision tools and other uses until 2368 A.D.

Potash: Grandchildren of World War II veterans may witness the end of our commercial supply some 117 years from now. After that, prospects are for 500 years of submarginal production; beyond that time nobody dares prophesy.

Salt: Enough for the longest of long views.

Soil: Enough.

Fortune, March, 1946, p. 208:2.

Inventory of the Nation's Production Equipment

THIRTY-NINE per cent of the major production equipment—other than machine tools—in the nation's metalworking industries is over 10 years old. However, if government-owned equipment is excluded, the amount of privately-owned production equipment over 10 years old would be about 60 per cent.

These are among the findings of a recent analysis of 16 major groups of items (air compressors, baking and drying ovens, bending machines, cranes, hoists, welding and cutting machines, etc.) held by the 20 chief subdivisions of the metalworking industry. The inventory did not cover holdings of other industries, such as woodworking, rubber, textile, public utility, and similar non-metalworking groups.

The number of units of production equipment operated by these 20 industrial groups increased by more than 50 per cent from 1940 to 1945. In all, there were 1,088,395 units in the 16 types of equipment covered, as against only 702,677 in 1940. Although the percentage of total units over 10 years old dropped from 64 in 1940 to 39 in 1945, the actual number of items over 10 years old was relatively unchanged from 448,733 in 1940 to 433,096 in 1945.

Of the major industrial groups, the best-situated is the aviation industry, which has only 6 per cent of equipment in the over-10-years-old category. The largest industrial holder of these items is the heavy equipment group, which has 233,780 units installed, of which 64,359 are over 10 years old—a ratio of 28 per cent.

Geographically speaking, the East North Central area has 42.2 per cent of the total, while the Middle Atlantic area is the second largest holder, with 20.3 per cent; the West South Central region has the smallest ratio of equipment over 10 years old, but it is the second smallest area from a numerical standpoint. Second-best situated is the West Coast, with only 15 per cent of its holdings over 10 years old.

—*American Machinist* 12/6/45

• A U. S. Department of Labor report says that in 23 out of 25 peacetime industries, unit labor costs have risen all the way from 17 per cent to 70 per cent.

—From an address by A. W. Rucker over Radio Station WCOP

Statistical Quality Control in War Production

WHEN the United States entered the war, few industrial concerns were using statistical methods for quality control, and the uses being made in any establishment were generally rather limited in scope. Only a handful of educational institutions had faculty members who were prepared, without special study, to offer instruction in the subject.

By the summer of 1945, over 8,000 persons from industrial establishments had taken war training courses in statistical quality control offered by institutions of higher education and averaging 57 hours of instruction per course; some thousands more had received training, usually on a somewhat less technical level, in courses given by their own companies. Close to 800 industrial establishments had sent nearly 1,700 men, many of them in high positions, to intensive eight-day courses in quality control.

The savings in manpower and material and the gains to the war effort from extension of the use of statistical methods in industry are impossible to estimate. Most responsible persons in charge of quality control are reluctant to put exact figures on the savings attributable to use of statistics even in individual instances. When the chief inspector of an aircraft plant (one of the smallest) estimated that a recent Army Air Forces directive permitting substitution of sampling inspection for 100 per cent magnetic inspection of certain classes of aircraft bolts would have saved his plant $70,000 in the previous year if it had been in effect then, he could fairly clearly credit the potential saving to use of statistical knowledge. But when the statistician for a small-arms ammunition plant estimated that reductions in test firing in connection with the development of a program of statistical control saved over $1,000 per day, who could say how much of this to credit to statistics? Use of statistical control charts helped to improve the uniformity of the ammunition, and statistical control charts showed when it was safe to curtail drastically the test-firing schedule. But many technicians and machine operators contributed to the improvement in product quality that was essential to reduced testing; and some of the reduction might have been made even though its justification had not been proved by statistical analysis.

Despite such difficulties in assessing the advantages attributable to statistical methods, a few further examples of gains from their use are worth citing. The manager of the quality control department of a large plant producing Norden bombsights and other fire-control equipment reported that the percentage of parts rejected in the machine tool division as a whole had been cut to one-fourth of the previous level in less than a year. The superintendent of quality control of a large company manufacturing ball bearings reported that use of control charts permitted reducing the amount of variation in a critical dimension of ball races to about one-fourth as much as it had been thought necessary to allow, and thus to reduce greatly the problem of selective assembly. A small manufacturer of ball bearings reported an increase in production efficiency and a reduction of the inspection force to less than one-third of that previously used, attributed in considerable part to statistical control.

In a large foundry making steel castings, a nine-month program of study of production problems and improvement of operational and control techniques, based largely on statistical analysis, cut rejections from 14 per cent to 2 per cent. The plant metallurgist of a large steel firm found that application of a scientific sampling plan permitted eliminating the conditioning of billets from a large proportion of the heats, with a saving of many thousands of dollars monthly and a reduction of two-fifths in scrap.

Aircraft assembly plants, which thought initially that statistical methods were inapplicable to their problems, have discovered that statistical control charts for number of faults per assembly found on final inspection are a valuable tool. The chief inspector of one plant with a relatively low volume reports a saving of $125,000 annually from the use of such a chart on one assembly line.

The manager of a small branch of an optical concern recently instituted control charts on losses from damage in the grinding of lenses for eyeglasses, and reduced the losses by one-half within three months.

The technical supervisor of a rubber plant reports that one of his first attempts at use of a control chart permitted reduction in the cost of sampling and testing by about $6,000 annually. With the aid of a control chart on tests made at the earliest possible stage, a considerable reduction was effected in the complicated blending of latex. A control chart showed another rubber company that excessive variability in a critical property of treated cord was not attributable primarily to non-uniformity of the purchased cord, as had been supposed, but to inability of their own equipment to maintain uniform tension during the treating process. They knew then how to correct the trouble.

Not infrequently the first-hand stories of use of control charts carry a human touch that is lost in a formal summary. Early in my experience in working with men in war industry, I called on the president of a small company where use of a control chart had been adopted at the suggestion and under the guidance of a representative of the aircraft plant buying the product. I was able to clear up a technical question of interpretation that had been troubling them, and then I suggested that a different type of chart might give the same advantages more economically. To that the president responded feelingly: "No, we'll stick to this chart. It saved our business."

BY HOLBROOK WORKING. *Journal of the American Statistical Association,* December, 1945, p. 425:22.

PRODUCTION CONFERENCE

A Conference of the Production Division of the American Management Association will be held on Monday, Tuesday, and Wednesday, April 22, 23, and 24, 1946, at the Hotel Pennsylvania, New York City.

Marketing Management

Successful Sales Supervision

YESTERDAY'S sales manager was considered a success if he qualified as a hail-fellow-well-met, with no arthritis in his elbow. Most of his time was spent in direct contact with customers and prospects. Such matters as selection of men and the routine functions of the office depended on a combination of hopes and guesses. But the 1946 sales manager, like the production manager, employs scientific techniques in the problems of human relations. The sales manager today concerns himself with research and market analyses; he is a planner, a coordinator, a director—*and* an administrator.

In contrast to the sales manager of former decades, the new sales manager, according to a survey made by the Policyholders' Service Bureau of the Metropolitan Life Insurance Company, devotes only 32 per cent of his time to selling activities (which include making calls with the field organization, selling personal accounts, maintaining distributor or trade relationships, etc.), while 68 per cent of his time is required for administrative duties (which include sales planning and research, advertising and sales promotion, product merchandising, and, of course, directing the sales organization). Planning, direction, coordination, and the control of selling activities are all administrative responsibilities.

Planning. The sales manager, like the architect, must develop plans which are workable and definite. It is not sufficient to establish a generalized goal, such as increased sales. Objectives should be set forth in specific terms—for example, that each salesman make three additional calls per day or reach 5 per cent of the potential customers in the territory. To be stimulating, aims must be definite, reasonable, acceptable to the salesman; and their attainment must be measurable. Often an objective is a group of aims subdivided into a number of sub-goals.

Manpower research. In the past, research was usually limited to markets and prospects. Another type of research which is of extreme importance to sales management, however, is manpower research. Several methods of securing data are available: the questionnaire, direct observation, interviews, and analyses of costs or statistics.

When an organization consists of more than 100 salesmen, a personnel inventory is advisable. This type of research reveals the education, age, sex, qualifications for promotion, interests, rates of salary progression, and other information about the staff which, in a measure, indicates its potential development. Such audits usually bring to the fore little-known facts about individuals, their complaints and grievances, and other factors worthy of study and correction.

The success or failure of a sales organization can be measured, in part, by the length of service and rate of labor turnover among salesmen. Districts with low labor turnover produce greater profits per employee than those with high labor turnover. One national distributor, for example, found

that in an area of high labor turnover annual profits per employee were only $5, whereas an area of low turnover produced annual profits of $165 per employee!

Daily calls and attention to prospects are the ammunition of sales work. They are important sales equipment and deserve research and study. Certain companies maintain a card record of all customers and prospects and establish a schedule for the salesman to follow in contacting them. The record of calls made by the salesmen enables the sales manager to know if each man is hitting his contact quota.

Dealers possess much knowledge which can be of great value to sales managers; much can be learned about salesmen from the customers themselves. According to one recent survey, 60 per cent of goods bought was purchased on the fifth or a subsequent visit—yet most salesmen were giving up after two or three calls.

Instructions to Salesman. Foremost among the responsibilities of the sales manager is that of properly instructing subordinates. In sales work, written instructions are best. The impression that thought has been given to instructions is conveyed when they are in writing. The salesman can always refer to them when he is in doubt—an important benefit for salesmen who do not have close contact with the office. Written instructions indicate the part which the recipient must play in their execution, establish time limitations, and reduce possibilities of misunderstanding.

Coordination. Events will not follow their appointed course without that kind of direction which correlates all parts to the main objective. The activities of other departments, such as manufacturing, delivery, advertising, billing, credit, and accounting must be properly correlated with those of the sales department before final action can be effected. Almost all sales managers experience the need for coordination, not only among the various departments but also with the men working away from the office.

Control. Most sales managers readily admit the desirability of various types of controls. There is an old principle of scientific management which says: *Each time an activity is decentralized, a corresponding control should be set up at the previous point of centralization.* Because for many years sales activities have been decentralized, some sales managers have lost sight of this principle.

No inventive genius has devised one system of control which fulfills all the needs in a sales department. A few standard methods are in use and are generally found in every organization. These include control of: (1) results per salesman; (2) relationships with prospective customers; (3) operation of the territory as a whole; (4) sales to established customers; (5) sales of various products; (6) results for districts or for the company as a whole.

Reports. Though many salesmen are inclined to cuss the reports they must submit, these are essential to effective sales management. Certain successful sales managers have developed reports which enable them to inform a salesman where he failed the previous month, where he excelled, and to make suggestions for the salesman's self-improvement. Such reports enable the sales manager to be guided by facts rather than by hunches or intuition. An important job, therefore, on each sales staff is that of the statistical researcher. The entire field of statistical and graphic presentation is, as a matter of fact, readily adaptable to sales work.

By Eugene J. Benge. *Industrial Marketing,* January, 1946, p. 66: 4.

Changes in Distribution Costs

CHANGES in distribution costs in the current period compared with the latest previous peacetime experience vary widely among different industries and their component members. There are about as many "no change" reports in a recent survey of business practices by the Conference Board as there are reports of increases. A much smaller proportion of cooperating business executives note decreased costs—in many instances of a temporary nature.

Effect of War on Trend. The lack of a clear trend in distribution costs reflects in part wartime dislocations. Reconversion has not been completed in some instances, and the volume of civilian sales continues abnormally low. Labor shortages and difficulties have also caused depressed sales volume. On the other hand, some concerns are able to benefit from the high level of consumer demand without stepping up sales effort. In some cases where costs are lower, increases will occur as soon as sales organizations are reestablished and normal peacetime service to customers restored.

A substantial number of companies have conducted research into the costs of distribution, though an even larger proportion have not undertaken it. A few are considering such programs in the near future when marketing conditions appear more stabilized. Generally, companies which have closely examined and analyzed distribution costs have been able to effect economies. There are cases of marked changes in costs, along with revised procedures and organizational setups.

For most companies the principal problem is one of production, as demand is far in excess of current supplies. Once this abnormal condition passes, most business executives believe that intensified selling efforts are going to be necessary. To this end, plans are being made to expand selling forces, as well as to reduce the size of the territory covered by individual salesmen, to enter new markets, introduce new products, etc.

Main Increase Factors. For manufacturing companies reporting higher distribution costs today than before the war, the principal factors include advances in salaries and operating expenses, freight rates and handling costs, and traveling expenses. Outlays for promotion and salesmen have, in some instances, been increased in the hope that volume will increase and thus subsequently result in lower unit costs. In some instances unit distribution costs have risen because (as reported by a textile manufacturer) of "lowered volume due to labor shortages and inability to acquire substantial quantities of needed critical materials."

During the war many services offered by manufacturers could, and frequently had to, be curtailed, but it is generally believed that, once initial demand has been satisfied, competition will force a resumption of increased service. Some fear that higher commissions to distributors may become necessary. Both points of view are reflected in this comment by a maker of industrial machinery:

> At the present time, and apparently for many months ahead, distribution will be no problem for us. After that a more intensified distribution effort will be important as customers are expecting a greater degree of service from the producer than they have experienced in the past. It is expected that our selling expense will not be increased but that our unit selling cost may be maintained at the prewar basis by increased volume, both in this country and abroad. There are indications, however, that in spite of the point of view so volubly expressed by members of the Administration in Wash-

ington, it may be necessary to allow distributors a somewhat larger commission than in the past. This is because our distributors are pointing out the necessity for increased coverage and service to customers, which, in their minds, will cause increased costs that cannot be offset entirely by increased volume.

Distributors' Costs. The situation confronting concerns which are exclusively distributors is also characterized by divergent trends in costs. Variations in volume largely explain the differences in cost trends. A distributor of industrial machinery reports:

> Our overhead is much greater than in the prewar period. That is, salaries and wages are greatly increased. Up to this time we have been able to absorb these increases because our volume has been larger, as is evidenced by the fact that our organization personnel is about double prewar. Unit costs of distribution remain fairly constant. As volume decreases, and we find it gradually sliding, it will be extremely difficult to adjust ourselves.

Research into Costs. Substantially more concerns report no research into the cost of distribution than report having undertaken such programs. In some instances research is not considered necessary, while in others the level of demand is so high that it is not regarded as an immediate problem. Considerable evidence of increased cost-consciousness, however, has accumulated, and many programs to analyze costs have been instituted. It is particularly significant that concerns reporting research, conducted either by their own organizations or by outside agencies, reveal important savings.

Other results of distribution-cost research include relocation of certain warehouses from the standpoint of more economic distribution of merchandise; changes in organization and methods which will be installed as required equipment becomes available; changes in over-the-counter packaging of products which will tend to standardize and reduce distribution costs; introduction of improvements such as "more information and illustrations in catalogs, simpler forms of data sheets, easier determination by the customer of what he wants to buy, short cuts in methods of entering orders, and simplification of procedures"; increases in sales through actual missionary selling to distributors in the field and through education of distributors' salesmen; concentration on restricted lines with certain customers; and, by the addition of advertising and promotion, increase in volume to obtain a better competitive position on price.

The general point of view of manufacturers who have undertaken research is reflected in the comment of an office equipment producer: "We believe that a review of all costs is worth while and, of course, it is absolutely necessary at the present time due to the dislocation caused by the war."

Marketing Organizations. Companies planning to enter new territories are in a minority except with respect to greater exploitation of foreign markets. Many firms in the past have, of course, had complete national coverage, and, while changes in organization may be effected, the scope of the territory will remain unchanged. On the other hand, a few concerns expect to reduce the territory covered in order to exploit smaller markets more intensively and to effect certain economies.

While marked differences are to be noted in plans for changes in sales territories, there is general agreement that more intensive selling efforts and exploitation of existing markets should be undertaken. To that end plans have been formulated. Sales organizations are being expanded or rebuilt and promotional efforts accelerated. At the moment, some producers are not in a

position to take on new customers, but that is regarded as a temporary situation. Some new distributors are being added, and closer contact is being maintained with existing distributors—efforts which are being supplemented by increased advertising, circularizing, and promotional work.

New Products. While the major efforts are in the direction of more intensively exploiting existing markets as well as improving existing products, a considerable number of new products will be placed on the market. It is well known that during the war many companies undertook work entirely alien to their normal peacetime activities. In a few cases, these concerns expect to continue in these "alien" lines, though certain problems of distribution and marketing are encountered. Thus, a mining and quarrying concern is going to continue "in a limited way in the metal manufacturing of machines of some type or other." In some quarters, price control is regarded as a deterrent to the introduction of new products.

By Henry E. Hansen. *The Conference Board Business Record,* December, 1945, p. 403:6.

PACKAGING CONFERENCE AND EXPOSITION

A Conference and Exposition of the Packaging Division of the American Management Association will be held on Tuesday, Wednesday, Thursday and Friday, April 2-3-4-5, 1946, at the Auditorium, Atlantic City, New Jersey.

Financial Management

Are Stocks Too High?

How long and how far will stocks continue their upward climb? In 1945, according to the *Magazine of Wall Street,* liquor stocks rose 180 per cent, public utilities 138 per cent, department stores 122 per cent, textiles 118 per cent, airlines 103 per cent. More than the average increase was registered by the active stocks in paper, amusements, meat packing, investment trusts, automobiles, auto accessories, construction, drugs and toilet preparations, non-ferrous metals, and aircraft. Less than the average increase occurred in food, railroads, steel and radio, with finance and shipbuilding stocks lagging at the rear of the active group.

The heaviest trading has been in the low-priced issues. One explanation commonly offered is that people think they can make more money by investing $1,000 in shares costing $10 apiece than in shares costing $100. It is supposed that they expect prices to rise by cents or dollars per share rather than by percentages. Perhaps some are as simple-minded as that. Or they may believe that low prices are an indication of greater possibility of appreciation during prosperity. This may be true, but it is not necessarily so. Such old standbys as New York Central, Packard, and RCA have had low prices relative to other issues. No doubt the phenomenon is partly accounted for by the fact that the public is in the market, and a small stake can be more widely diversified in low-priced shares than in more costly ones. At any rate, the prices of the 15 most active stocks in 1945 ranged at the end of the year between $3 and $33 per share. Their sales, according to *Your Investments*, accounted for about 17 per cent of all the sales on the New York Stock Exchange.

There is an old legend that people invest in securities in order to earn a return on their capital. According to this legend, thrifty people, by sacrificing present satisfactions, save money. The financial markets offer them an opportunity to place this money where it will be available at need, and in the meantime will earn a return because it is used in production or distribution of goods or services.

The legend further relates that the savers will be tempted to save and invest more by a high return, and will be discouraged from doing so by a low return. Within this general setup, those who value the safety of their funds more than their income will invest in relatively safe securities like government bonds, which yield less, while those who stress larger income will be willing to take a greater risk by buying common stocks of business enterprises, which yield more.

If all this were true, we should be able to learn something about whether stock prices were too high by inspecting the yield of stocks at current prices and dividends. For if the yield were too low, people would stop saving and investing so much, and if little more could be earned from common stock than from bonds, most investors would sell stocks and buy bonds. Either action would make stock prices fall.

The stocks in the Dow-Jones industrial average yielded, on April 28, 1942, 7.68 per cent. A person who invested $1,000 in these stocks on that day would have had from them an annual income of $76.80. If, on January 9, 1946, he had invested $1,000 in the same stocks, his annual income would have been, at current dividend rates, $33.40. The yield has thus been cut by more than half, being at the later date 3.34 per cent. A similar fall has occurred in the yield of railroad stocks.

Anyone who in 1942 wanted greater safety, and bought prime bonds, would have received interest on his $1,000 investment amounting to $27.40. The temptation to buy stocks instead was therefore considerable, the difference in yield being $49.80 per $1,000 of investment. In January of this year prime bonds yielded $25.60 per thousand, as against $33.40 for industrial stocks. Is that $8 margin enough to compensate for the supposed difference in safety?

If you have bought Series E United States War Bonds and keep them to maturity, you will receive 2.9 per cent on your investment. If you bought Series F, you will earn 2.53 per cent. Series G yields 2.5 per cent. If you bought Chrysler common stock on January 23, 1946, present dividends

would bring you 2.2 per cent—less than the least remunerative government bonds. American Cyanamid would have yielded on that date 2.5 per cent—exactly the same as Series G bonds. So would Montgomery Ward. Many other common stocks would have earned little more.

If you did not insist on the unequaled safety of government bonds, you could, in January, 1946, have obtained a return of 4.19 per cent by buying Atchison, Topeka and Santa Fe preferred stock—a high-grade security. This is larger than the present yield of any one of 17 common-stock issues recently recommended by a large investment service for "appreciation possibilities combined with income return." The list contains some of the greatest and most prosperous corporations.

If the economists' fairy tale about the motives and actions of security purchasers were true, stock prices would, without any doubt whatever, now be too high by the test of yield. But it is a bedtime story.

Most of the savings accumulated during the war did not come from voluntary sacrifice of current satisfactions. Those who did pinch themselves have a minor part of the liquid funds. The American people as a whole during the war consumed more goods than ever in history, and were prevented from consuming still more only because the goods were not available or were rationed. Savings were, in effect, compulsory. Business concerns could not spend their profits, however hard they tried. Savings are being made now, not because desire to consume is low relative to the incentive to save, but because current incomes are more than enough to buy what is for sale. Reduction of stock yields, therefore, does not diminish the huge accumulations of liquid funds available for investment. The attractions of current consumption may not reduce savings for some time to come—even if the economists were right about normal times, as they probably are not.

It is not true that most stock buyers are "investing" for present income return; they look not at current dividends, but at what they hope business will pay. Or they are hedging against expected inflation in commodity prices and the cost of living. Many are engaged in pure speculation. They don't care at all about either safety or yield. They want to make a lot of money with the windfalls left in their hands by the war, and are buying stocks because they expect to sell at a higher price.

Yet there is some significance in safety. There *are* people who care about it—people who are not primarily on the make, but have funds to protect. There are conservatively conditioned trustees, with long experience. There are insurance companies. Even banks retain some elementary caution. The Carnegie Corporation, a great philanthropic foundation, enlarged its holdings of common stocks in 1940, 1941, and 1943, but sold more than it bought in 1944 and 1945. Great financial institutions and market-wise large investors did most of their stock buying when prices were low, and presumably are now feeding out their holdings while speculators and small investors are bidding prices up.

To most people, however, the question whether stock prices are too high means simply whether they are going to keep on going up. Any answer involves prediction. Many cheery predictions are now being made in Wall Street. But good prediction involves the difficult job of attempting to balance against one another all the numerous forces at work.

By George Soule. *The New Republic,* February 25, 1946, p. 278:3.

Insurance

A Modern Employee Protection Plan

A NEW employee benefit plan which, in scope and value of its economic provisions, goes far beyond standard employee group coverage has been adopted by Bristol-Myers Company, nationally known drug manufacturer. Benefits of the plan are extended to employees without cost, the company assuming the entire expense of its administration.

Its benefits cover illnesses or accidents involving disability of long or short duration, unemployment, and death. The plan replaces one in effect for many years which provided some benefits that were free to employees and others that employees supported in part or in full.

Certain features of the newly adopted plan which have been termed revolutionary are those covering long-term and permanent disability. More liberal than standard group coverage are a number of benefits applying to hospitalization and medical care. This part of the Bristol-Myers plan establishes for the first time in industry a substantial allowance for nursing services. Employee dependents are also eligible for medical care at extremely low cost.

Composed of four parts, the plan covers: under Section 1, accident and sickness benefits for short-term, long-term, and permanent disability; under Section 2, a broad schedule of payments for medical care; under Section 3, life insurance; and under Section 4, unemployment benefits.

Short-term disability benefits allow for full salary payable for a maximum period of six weeks, after three months' service as a regular full-time employee. Long-term disability benefits commence at the end of the sixth week of incapacity, and range from five weeks at 50 per cent of salary after one year or more of service. Permanent disability benefits, payable after 10 years of service, call for 20 per cent of regular salary with a 2 per cent increase for each year of active service beyond 10 years to a top of 50 per cent of salary for 25 or more years of service right up to the retirement age of 65. Minimum payments are $50 monthly, and maximum payments $500 per month. Benefits under these provisions would be subject to adjustment for any payments made to an employee on account of workmen's compensation insurance.

Reimbursement for cost of medical care is available to employees after three months' service under the following schedule: for any one disability, semi-private hospital accommodations at a cost not to exceed $420; hospital service charges, $100; surgical attention, $225; physician's care at $5 per hospital or home visit and $3 per office visit; laboratory and X-ray examination, $25; nursing services, $300. Benefits under physician's care, laboratory and X-ray examinations, and nursing services are subject to a $50 deduction.

Employee dependents are insurable under the medical benefits section at a monthly cost of $3.50 for one dependent and $5 for two or more.

Life insurance coverage for employees, ranging from $1,000 to $15,000, is approximately equal to annual salary.

If the company discontinues either temporarily or permanently the services of a regular full-time employee because of lack of work, he is entitled to 50 per cent of regular salary for periods rang-

ing from four weeks for six months' service to a maximum of 50 weeks for 10 or more years' service, with a minimum benefit of $20 per week and a maximum of $100 per week, subject to adjustment for unemployment benefits under state unemployment insurance acts.

The Insurance Broker & Buyer, February, 1946, 10:2.

Developments in Multiple-Line Underwriting

OF interest to every insurance buyer is the possibility that his underwriter may, in the not-too-distant future, be prepared to offer him multiple-line coverage. Commenting on the feasibility of this development, John A. Diemand, president of the Insurance Company of America, declared, at the annual meeting of the American Association of University Teachers of Insurance:

"We are on the march toward the goal of multiple-line writing power. Most sincerely do I hope that every state will soon enact into law the recommendations of the Harrington Committee report—first, because I know that the conclusions in that report were reached only after very careful study and thought by competent representative insurance men; and, second, because I believe that in the adoption of these conclusions the insuring public will be benefited."

Emphasizing the result accomplished under charters granting multiple-line powers, Mr. Diemand referred to the British system and quoted figures given by Lord Woolton before the British Insurance Association. These figures showed total premiums of British companies, in insurance other than life, of £260,000,000, and of this total £160,000,000 is in overseas business—a 25 per cent share of world insurance other than life.

"To seek to emulate the success of our British brethren in the world markets," said Mr. Diemand, "is a worthy and challenging undertaking, and the interest of the American policyholder demands that we make the effort."

Mr. Diemand explained that it is not intended by the advocates of the multiple-line writing power system that a corporation should exercise all its right to engage in all kinds of insurance.

"The important fact is," said Mr. Diemand, "that permission, so far as the state license is concerned, would allow the corporation to transact all kinds of insurance, except life and annuities, under one charter, and it would be within the discretion of the officers of the corporation to determine when and how this complete privilege would be exercised.

"It seems useful to point out that multiple-line underwriting and multiple-line writing power are not at all synonymous with the expression 'all-risk insurance' or 'single-policy insurance' or 'package insurance,' or any other term that indicates broad-form coverage in a single policy. Broad-form coverage in a single policy that involves the combining of kinds of insurance is the result of statutory provision permitting multiple-line writing power by the licensed insuror issuing the contract."

"It must be recognized," Mr. Diemand continued, "that no matter what position one takes on the subject of extending multiple-line underwriting

powers, the principle is here and it must be dealt with. Indeed, the principle has grown in importance in recent months if change in executive opinion is any criterion, and it will loom ever more important as those states which feel disposed to resist the movement are confronted with the question of whether or not they will allow their licensed insurors to transact broader writing powers outside their state than is permitted them within the state.

"In New York, for example, the statute would require the Commissioner to find that the interests of the people of the State of New York were adversely affected before he could order a licensed company to relinquish its broader charter powers outside the state. . . . If he did reach such a conclusion, New York companies doing business in states granting broader underwriting powers would find themselves at a serious disadvantage with companies domiciled in such states, because the ruling of New York would put them at a competitive disadvantage with companies not affected by such ruling.

"It is apparent that the question of extending multiple-line underwriting powers is not one for theoretical debate. The question is real; the problem is here, and it must be dealt with by all commissioners of insurance.

"Massachusetts, Pennsylvania, New Jersey, and North Carolina have extended the multiple-line writing power principle by enacting the necessary legislation. At this writing, the Missouri Senate has passed a multiple-line bill, and the State of Washington is expected to include a provision for multiple powers in its proposed insurance code. . . . These states did not find it necessary to change the law or eliminate any requirement with respect to reserving or licensing, nor did they effect any law or practice in connection with commissions or statistical reporting, nor did they eliminate from their laws or regulations present mandatory requirements in connection with clauses or contracts of insurance."

The Insurance Broker-Age, February, 1946, p. 9:1.

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• WAGES AND SALARIES in 1939-1941 constituted 62.6 per cent of national income. In 1942-1944 they were 68.4 per cent, says a recent Twentieth Century Fund study.